

Inventors: Blum, Roger, et al.  
Serial No.: 10/624,192  
Filed: July 21, 2003  
Page 4

### **Remarks**

Claims 1 and 12-28 are pending. Claims 12, 13, 15, 18, 24 and 26-28 are under examination. Claims 27 and 28 have been amended to clarify the claimed time periods. New claims 29-34 have been added. . Support for new claims 29-34 can be found throughout the specification, for example, at page 3, lines 5-10 and 25-26, and at page 5, line 10. Upon entry of the amendment claims 13 and 26-34 will be pending and under examination. Accordingly, these amendments and new claims do not raise an issue of new matter and entry thereof is respectfully requested.

Entry of the proposed amendments is respectfully submitted to be proper because the amendments are believed to place the claims in condition for allowance.

### **Regarding the Oath/Declaration**

Applicants will provide a replacement for the allegedly defective Oath/Declaration under separate cover.

### **Regarding 35 U.S.C. § 112, First Paragraph**

The rejection of claims 13 and 26-28 under 35 U.S.C. § 112, first paragraph, for allegedly lacking written description of the invention, respectfully is traversed.

The Office Action alleges that only Ponceau 4R, Patent Blue and tartazine were shown and Applicants do not have written description for the additional food colors listed in claim 26. Current Office Action mailed July 11, 2007, page 3, second full paragraph. The Office Action further alleges that gold is not a food color. Current Office Action mailed July 11, 2007, page 3, second full paragraph.

Applicants respectfully direct the Examiner's attention to the preliminary amendment filed concurrently with the parent application U.S.S.N 09/957,658, on September 17, 2001, which amends the specification at page 3, after the third full paragraph to list in full Annex I ("List of Permitted Food Colours") of EC directive 94/36 of June 30, 1994. A copy of the

Inventors: Blum, Roger, et al.  
Serial No.: 10/624,192  
Filed: July 21, 2003  
Page 5

Preliminary Amendment is attached for the Examiner's convenience. In view of the concurrently filed Preliminary Amendment, the specification as filed, provides written description for each of the food colors recited in claim 26. In addition, as shown in Attachment 1, Gold is included among the list of permitted food colors of EC directive 94/36. With regard to combinations of food colors, the specification provides written description at page 3, lines 5-10 and 25-26, and at page 5, line 10. Finally, the rejection has been rendered moot with regard to claims 27 and 28, which have been amended above.

In view of the above, removal of the rejection of claims 13 and 26-28 under 35 U.S.C. § 112, first paragraph, for allegedly lacking written description of the invention, is respectfully requested.

**Regarding 35 U.S.C. §102**

The rejection of claims 12, 15, 23 and 24 under 35 U.S.C. §102(b) as being anticipated by United States Patent No. 2,774,673, ("Young") is respectfully traversed for the reasons already made of record. This rejection has now been rendered moot by cancellation of the rejected claims without prejudice.

**Regarding 35 U.S.C. §103**

The rejection of claims 12, 15, 23 and 24 under 35 U.S.C. §103(a) as being unpatentable over Young is respectfully traversed for the reasons already made of record. This rejection has now been rendered moot by cancellation of the rejected claims without prejudice.

Inventors: Blum, Roger, et al.  
Serial No.: 10/624,192  
Filed: July 21, 2003  
Page 6

**Conclusion**

In light of the Amendments and Remarks herein, Applicants submit that the claims are now in condition for allowance and respectfully requests a notice to this effect. The Examiner is invited to call the undersigned attorney if there are any questions.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP

/Astrid R. Spain/

Astrid R. Spain  
Registration No. 47,956

4370 La Jolla Village Drive, Suite 700  
San Diego, CA 92122  
Phone: 858.535.9001 ARS:cjh  
Facsimile: 858.597.1585  
**Date: January 11, 2008**

**Please recognize our Customer No. 41552  
as our correspondence address.**

PATENT  
Our Docket: P-UX 4963

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of	)	Group Art Unit: Not yet known
Blum and Kadow	)	
	)	Examiner: Not yet known
Serial No.: Not yet assigned	)	
	)	
Filed: Herewith	)	<b>CERTIFICATE OF MAILING BY "EXPRESS MAIL"</b>
	)	"EXPRESS MAIL" MAILING LABEL NUMBER: <b>EL 857042132 US</b>
	)	
For: USE OF FOOD COLOURS TO	)	DATE OF DEPOSIT: <b>September 17, 2001</b>
DYE ENZYME SOLUTIONS	)	

I HEREBY CERTIFY THAT THIS PAPER OR FEE IS BEING  
DEPOSITED WITH THE UNITED STATES POSTAL SERVICE  
"EXPRESS MAIL POST OFFICE TO ADDRESSEE" SERVICE  
UNDER 37 CFR 1.10 ON THE DATE INDICATED ABOVE AND IS  
ADDRESSED TO THE COMMISSIONER FOR PATENTS, ATTENTION  
BOX PATENT APPLICATION, WASHINGTON, D.C. 20231.

Attn: Box Patent Application  
Commissioner for Patents  
Washington, D.C. 20231

*Calvin Fan*

Printed Name of Person Mailing Paper or Fee

Sir:

*[Signature]*

Signature of Person Mailing Paper or Fee

**PRELIMINARY AMENDMENT**

The Applicants respectfully submit the following  
amendments and remarks along with the original Specification.

**I. Amendment**

**A. In the specification**

Please amend the Specification by inserting the  
following new paragraphs:

**Page 1, after the title:**

This application claims priority under 35 U.S.C. § 119  
to German patent application 100 46 034.8, filed September 18,  
2000. The contents of German patent publication DE 197 37 173 A1  
are hereby incorporated by reference.

Inventors: Blum and Kadow  
Serial No.: Not yet assigned  
Filed: Herewith  
Page 2

**Page 3, after the third full paragraph:**

Annex I ("List of Permitted Food Colours") of EC directive 94/36 of June 30, 1994, lists the following food colors:

EC No.	Common Name	Colour Index number
E100	curcumin	75300
E101	riboflavin, riboflavin-5'-phosphate	
E102	tartrazine	19140
E104	quinoline yellow	47005
E110	Sunset Yellow FCF, Orange Yellow S	15985
E120	cochineal, carminic acid, carmines	75470
E122	azorubine, carmoisine	14720
E123	amaranth	16185
E124	Ponceau 4R, Cochineal Red A	16255
E127	erythrosine	45430
E128	Red 2G	18050
E129	Allura Red AC	16035
E131	Patent Blue V	42051
E132	indigotine, indigo carmine	73015
E133	Brilliant Blue FCF	42090
E140	chlorophylls	75810
E140	chlorophyllins	75815
E141	copper complexes of chlorophylls	75815
E141	copper complexes of chlorophyllins	75815
E142	Green[s] S	44090
E150a	plain caramel	

Inventors: Blum and Kadow  
Serial No.: Not yet assigned  
Filed: Herewith  
Page 3

E150b caustic sulphite caramel  
E150c ammonia caramel  
E150d sulphite ammonia caramel  
E151 Brilliant Black BN, Black PN 28440  
E153 vegetable carbon  
E154 Brown FK  
E155 Brown HT 20285  
E160a mixed carotenes 75130  
E160a beta-carotene 40800  
E160b annatto, bixin, norbixin 75120  
E160c paprika extract, capsanthin, capsorubin  
E160d lycopene  
E160e beta-apo-8'carotenal (C30) 40820  
E160f ethyl ester of beta-apo-8'carotenal (C30) 40825  
E161b lutein  
E161g canthaxanthin  
E162 beetroot red, betanin  
E163 anthocyanins  
E170 calcium carbonate 77220  
E171 titanium dioxide 77891  
E172 iron oxides and hydroxides 77491, 77492, and 77499  
E173 aluminum  
E174 silver  
E175 gold  
E180 Litholrubine BK

As used herein, the term "caramel" relates to products of a more or less intense brown color intended for coloring. It does not correspond to the sugary aromatic product obtained from heating

Inventors: Blum and Kadow  
Serial No.: Not yet assigned  
Filed: Herewith  
Page 4

sugars and not used for flavoring food, such as candies, pastry and alcoholic drinks.

These food colors can be grouped into the following classes:

- Class I:** curcumin, tartrazine, cochineal, carminic acid, carmines, azorubine, carmoisine, amaranth
- Class II:** erythrosine, indigotine, indigo carmine, annatto, bixin, norbixin, paprika extract, capsanthin
- Class III:** capsorubin, lycopene, beta-apo-8'carotenal (C30), ethyl ester of beta-apo-8'carotenal (C30), lutein, canthaxanthin, beetroot red, betanin, anthocyanins
- Class IV:** riboflavin, riboflavin-5'-phosphate
- Class V:** quinoline yellow, Sunset Yellow FCF, Orange Yellow S
- Class VI:** Ponceau 4R, Cochineal Red A, Red 2G, Allura Red AC, Litholrubine BK
- Class VII:** Patent Blue V, Brilliant Blue FCF
- Class VIII:** Green S, Brilliant Black BN, Black PN, Brown FK, Brown HT

Inventors: Blum and Kadow  
Serial No.: Not yet assigned  
Filed: Herewith  
Page 5

**Class IX:** chlorophylls, chlorophyllins, copper complexes of  
chlorophylls, copper complexes of chlorophyllins

**Class X:** vegetable carbon, mixed carotenes, beta-carotene

**Class XI:** plain caramel, caustic sulphite caramel, ammonia  
caramel, sulphite ammonia caramel,

**Class XII:** calcium carbonate, titanium dioxide, iron oxides  
and hydroxides, aluminum, silver, gold

**B. In the claims:**

Please cancel claims 1 to 11, and then add the  
following new claims:

12. A solution comprising an enzyme and a food color.

13. A solution comprising an enzyme and a food color,  
wherein the enzyme is a restriction enzyme.

14. A solution comprising an enzyme and a food color,  
wherein the enzyme is a polymerase.

15. The solution of claim 12, 13 or 14, wherein the  
food color is selected from the group consisting of curcumin,  
riboflavin, riboflavin-5'-phosphate, tartrazine, quinoline  
yellow, Sunset Yellow FCF, Orange Yellow S, cochineal, carminic  
acid, carmines, azorubine, carmoisine, amaranth, Ponceau 4R,



Inventors: Blum and Kadow  
Serial No.: Not yet assigned  
Filed: Herewith  
Page 6

Cochineal Red A, erythrosine, Red 2G, Allura Red AC, Patent Blue V, indigotine, indigo carmine, Brilliant Blue FCF, chlorophylls, chlorophyllins, copper complexes of chlorophylls, copper complexes of chlorophyllins, Green S, plain caramel, caustic sulphite caramel, ammonia caramel, sulphite ammonia caramel, Brilliant Black BN, Black PN, vegetable carbon, Brown FK, Brown HT, mixed carotenes, beta-carotene, annatto, bixin, norbixin, paprika extract, capsanthin, capsorubin, lycopene, beta-apo-8'carotenal (C30), ethyl ester of beta-apo-8'carotenal (C30), lutein, canthaxanthin, beetroot red, betanin, anthocyanins, calcium carbonate, titanium dioxide, iron oxides and hydroxides, aluminum, silver, gold and Litholrubine BK.

16. The solution of claim 12, 13 or 14, wherein the food color is an azo dye.

17. The solution of claim 12, 13 or 14, wherein the food color is a triarylmethane dye.

18. The solution of claim 12, 13 or 14, wherein the food color is Ponceau 4R.

19. The solution of claim 12, 13 or 14, wherein the food color is Patent Blue V.

20. The solution of claim 12, 13 or 14, wherein the food color is tartrazine.

Inventors: Blum and Kadow  
Serial No.: Not yet assigned  
Filed: Herewith  
Page 7

21. The solution of claim 12, 13 or 14, further comprising a second food color.

22. The solution of claim 21, wherein the two food colors are selected from the group consisting of Ponceau 4R, Patent Blue V and tartrazine.

## II. Remarks

This amendment inserts a priority claim to an application filed in Germany within 12 months of the filing date of this application.

The amendment also incorporates materials referred to in the specification, namely the list of food colors appearing in Annex I. The Applicants submit that because the original Specification explicitly referred to Annex I of EC directive 94/36, copies of which have been published and widely available in the United States, the incorporation does not add new matter.

Claims 1 to 5 have been replaced with new claims 12 to 22. The new claims are filed merely to reorganize and reword the substance of claims 1 to 5 in a style more favorable to U.S. practice. Consequently, the new claims are not filed for any reason of substantive patentability and they do not change their scope.

Claims 6 to 11 have not been replaced with new claims because they are in "use" format, but the Applicants reserve the

Inventors: Blum and Kadow  
Serial No.: Not yet assigned  
Filed: Herewith  
Page 8

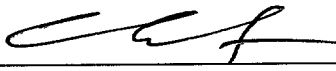
right to pursue the subject matter of these claims in a subsequent related application.

The Examiner is invited to call the undersigned attorney or Cathryn Campbell with any questions.

Respectfully submitted,

September 17, 2001

Date

  
\_\_\_\_\_  
Calvin A. Fan  
Registration No. 38,444  
Telephone No. (858) 535-9001  
Facsimile No. (858) 535-8949

CAMPBELL & FLORES LLP  
4370 La Jolla Village Drive  
7th Floor  
San Diego, California 92122  
**USPTO Customer No. 23601**

2001 SEP 17 10 56 AM